PATENT SPECIFICATION

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COMPLETE SPECIFICATION

Improvements in or relating to Devices for Protecting Screening Apparatus

We, PREPARATION INDUSTRIELLE DES COMBUSTIBLES, of 13 Boulevard Crevat-Durand, Fontainebleau, (S-&-M), France, a French Limited Liability Company, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement :—

The present invention relates to a device for protecting screening apparatus and is more particularly concerned with a device for protecting a screen or sieve cloth against impact by large pieces of the material being handled, with a view to avoiding damage to the cloth and consequently extending its life.

Known devices used to protect fine-mesh screen or sieve cloths generally consist of a large-mesh grate superposed on the fine-mesh cloth and located closely to it.

The drawbacks of this arrangement are :

1. The use of two superposed screening surfaces ;

2. The difficulty of exactly locating a large-mesh grate on a fine-mesh cloth ; and

3. In the case of a vibrating screen or sieve, the quick wear of the cloth due to unavoidable relative movement between the grate and cloth.

According to the present invention, a protecting device for a screen or sieve cloth is provided, which comprises bars of rubber moulded on said cloth at predetermined spacings, whereby direct impact on said cloth of pieces of the material being handled which are sufficiently large to damage such cloth is prevented.

The bars are preferably arranged parallel to each other and to the direction of flow of the material being handled.

The accompanying drawing shows one embodiment of such a device for protecting a screen or sieve cloth according to the invention, by way of example only, since the invention is not necessarily limited to this form.

In the drawing :—

Fig. 1 is a plan view of a screen-cloth of interwoven wires, with the protecting device thereon ; and

Fig. 2 is a transverse section of the screen-cloth of Fig. 1.

The screen-cloth comprises a plurality of interwoven wires 1 which are embedded in rubber bars 2 moulded on such cloth and arranged parallel to the direction followed by the material being screened, as indicated by the arrow 3 (Fig. 1). In the particular construction shown in the drawing, the spacing distance *a* between adjacent bars 2 is approximately 40 mm. and the overall height *b* of each bar 2 is about 15 mm. The spacing distance *a* and the height *b* and other dimensions of the bars 2 may clearly vary according to the mesh size of the cloth, the thickness of the wires 1 and the size of material being handled. The preferred cross-section for the bars 2 is shown in Fig. 2, wherein the distance *c* by which the bars 2 project below the cloth is approximately 3 mm., the greatest width *d* of each bar 2 at the cloth and its height *e* above the cloth are both approximately 10 mm. and the radius of the generally semi-circular uppermost portion of each bar 2 is of the order of 2.5 mm.

It may readily be seen that the above-described preferred shape of the rubber bars 2 prevents large pieces of the material being screened from falling upon and hence possibly damaging the screen proper, by means of the large portion of the bars 2 protruding above the screen.

In general pieces whose size exceeds the distance *a* between two bars 2 will not come into contact with the wires 1 of the screen or, if they do, the impact will be damped by the protruding portion of the bars 2.

On the other hand, the smaller sizes will

[Price 3/-]